



SYSCOM Assessment Support to the Naval Capabilities Development Process

**Industry Conference
21 October 2004**

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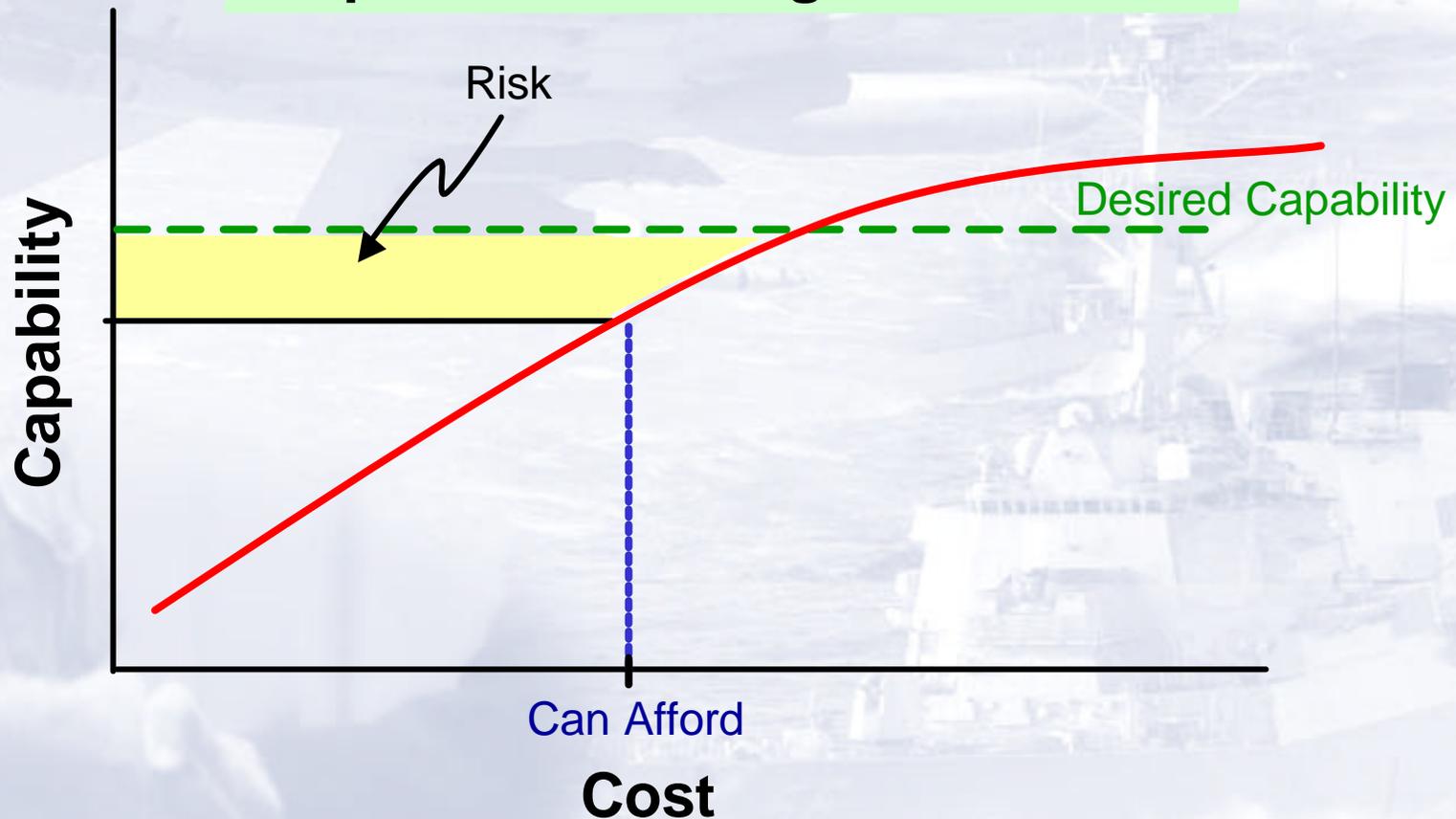
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(20 October 2004)**



- **Naval Capability Development Process (NCDP)**
- **Evolving Approach Combining FORCEnet Implementation with NCDP**
- **SPAWAR's Analytical Products**
- **Balancing Risk & Resource Alignment**
- **Summary**

Cost vs Capability

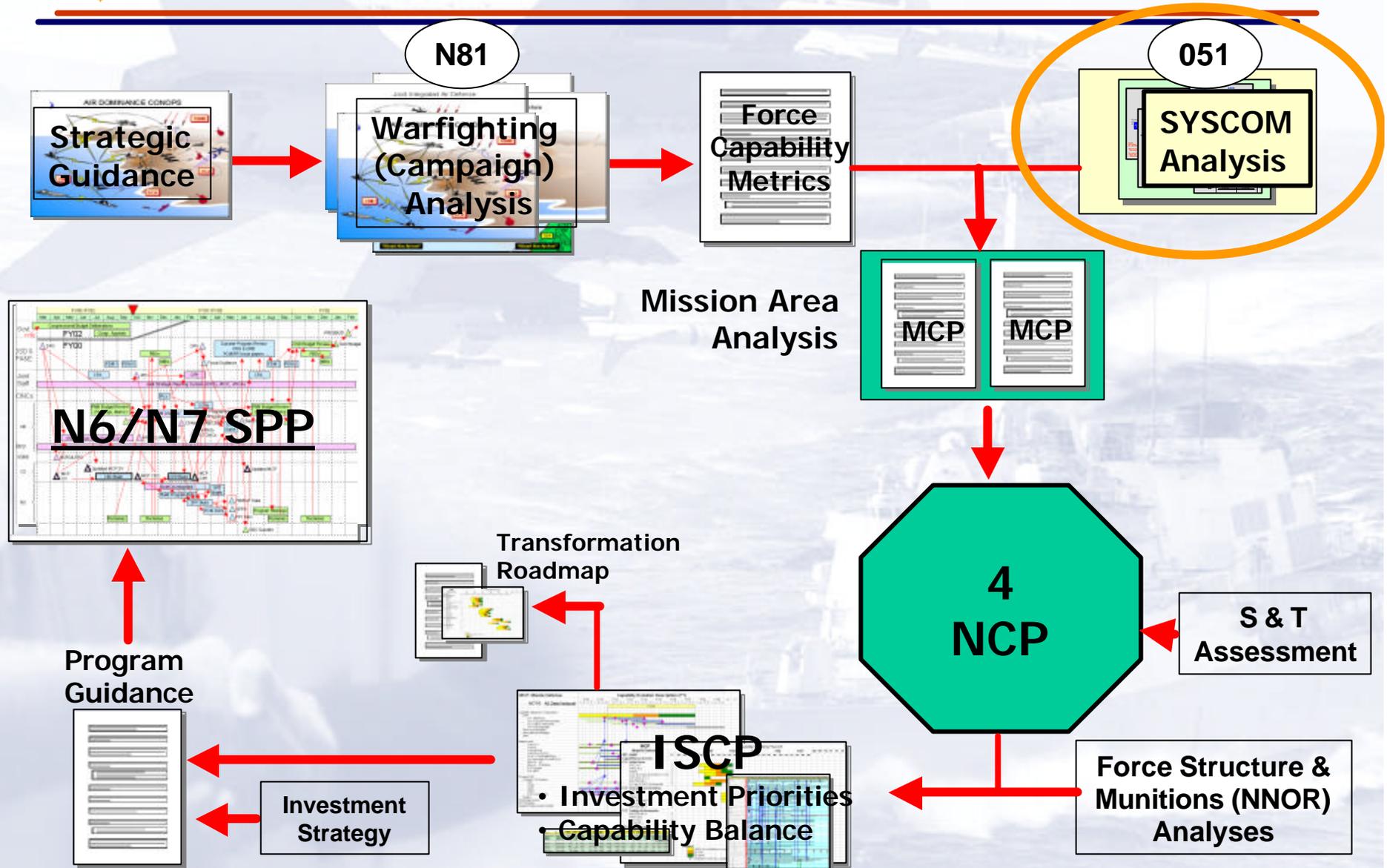
Requirement = Program + Risk



SoS & FoS Mapping provides the Foundation!!

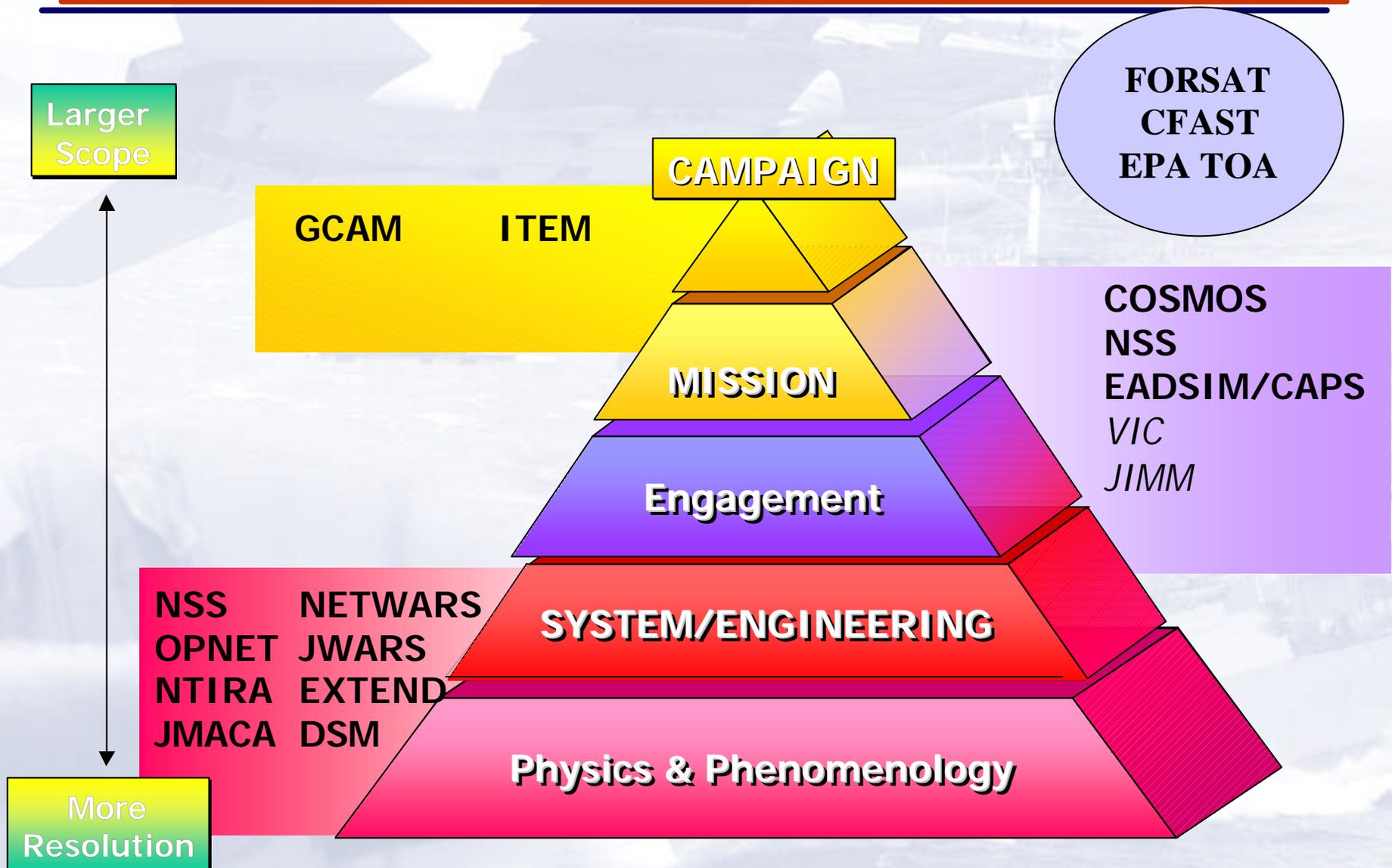


Naval Capability Development Process (NCDP)





Engineering Modeling Hierarchy





Evolving SYSCOM Assessment Process Merges NCDP and FORCEnet Implementation

- **Prioritized Operational Scenarios**
 - OV-1s, OV-6cs [threads]
- **MOPs/MOEs/Metrics**

N81/N6/N7/NNWC/C2F/C3F/CFFC

- N81 Campaign Analysis
- Fleet Exercises
- Ongoing Military Operations

- **Systems Architectures**
 - SV-1s, SV-10cs
- **Performance, Cost, Schedules, Risk Options Analysis**
 - Roadmaps

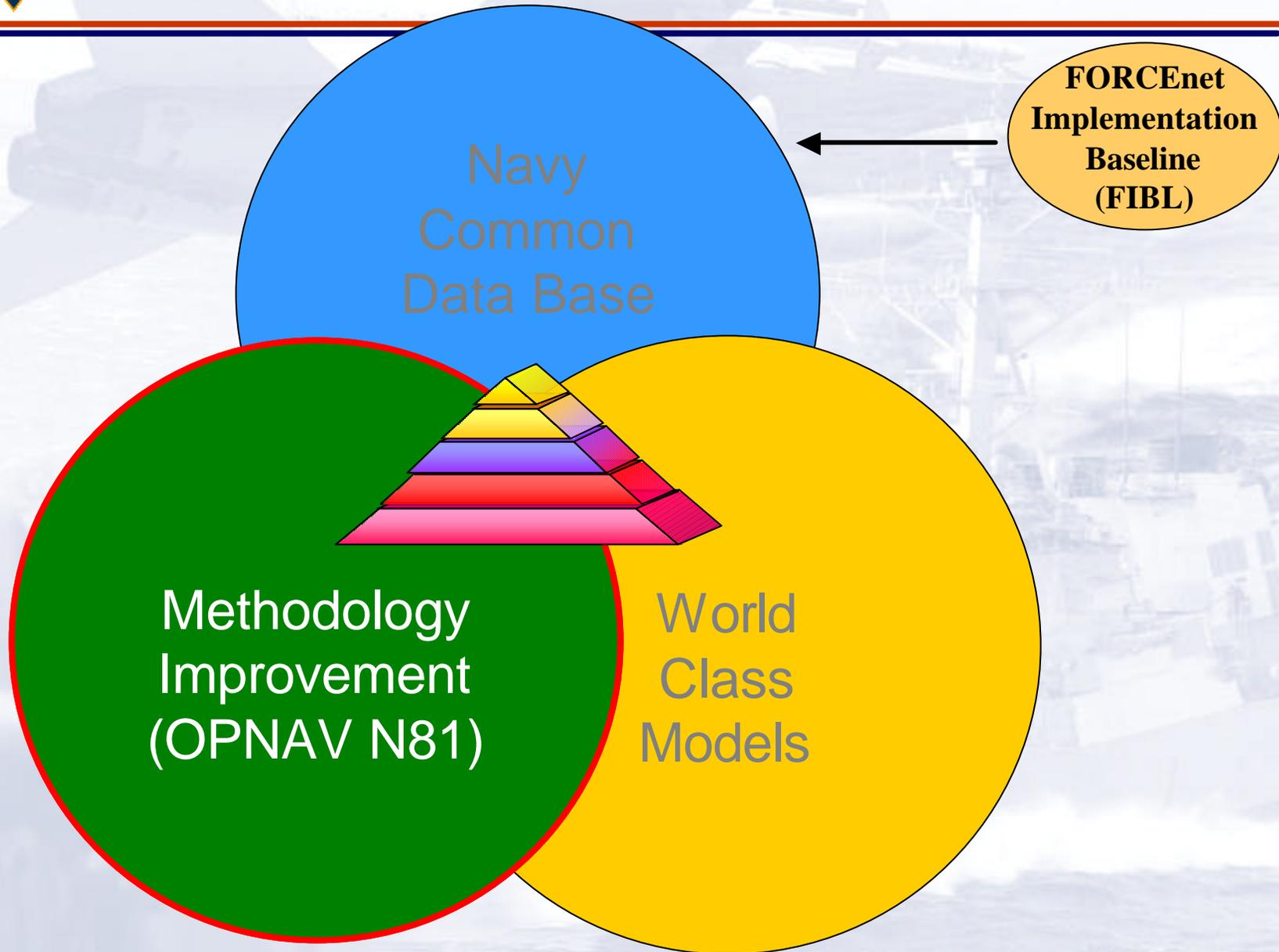
SYSCOMS/SSCs

- **Experimentation**
 - DEP
 - Trident Warrior
- **Static Assessments**
 - FnIBL Survey
 - GEMINI
 - OPNET
- **Dynamic Assessment**
 - NETWARS
 - JWARS
 - NSS



SYSCOM Assessments

Use of OPNAV N81 Tools





Joint SYSCOM NCDP Construct

Sea Shield

Sea Basing

Sea Strike

FORCEnet

NAVSEA

NAVSEA

NAVAIR

SPAWAR

VADM Balisle

VADM Massenburg

RADM Slaght

JOINT SYSCOM NCDP REPS

CAPT Teresa Barrett

CAPT Matt Scassero

Ms. Lisa Knock

Mr. Tom Demas

Dr. Bob Smith

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Ms. Susan Haas

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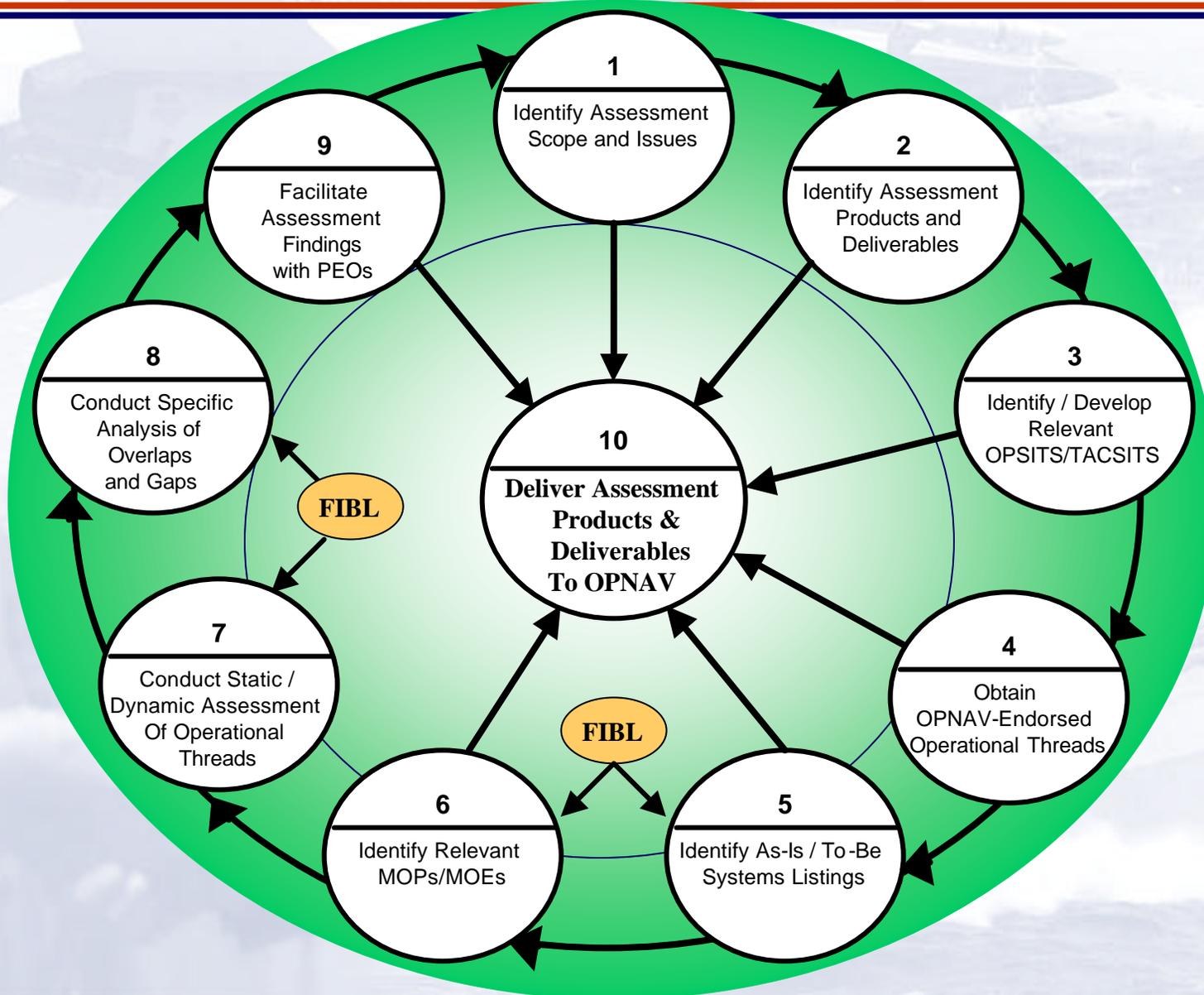
PEOs/PMs, SMEs, Field Activities, PADS, Industry

MARCOR Mr. Kevin Smith



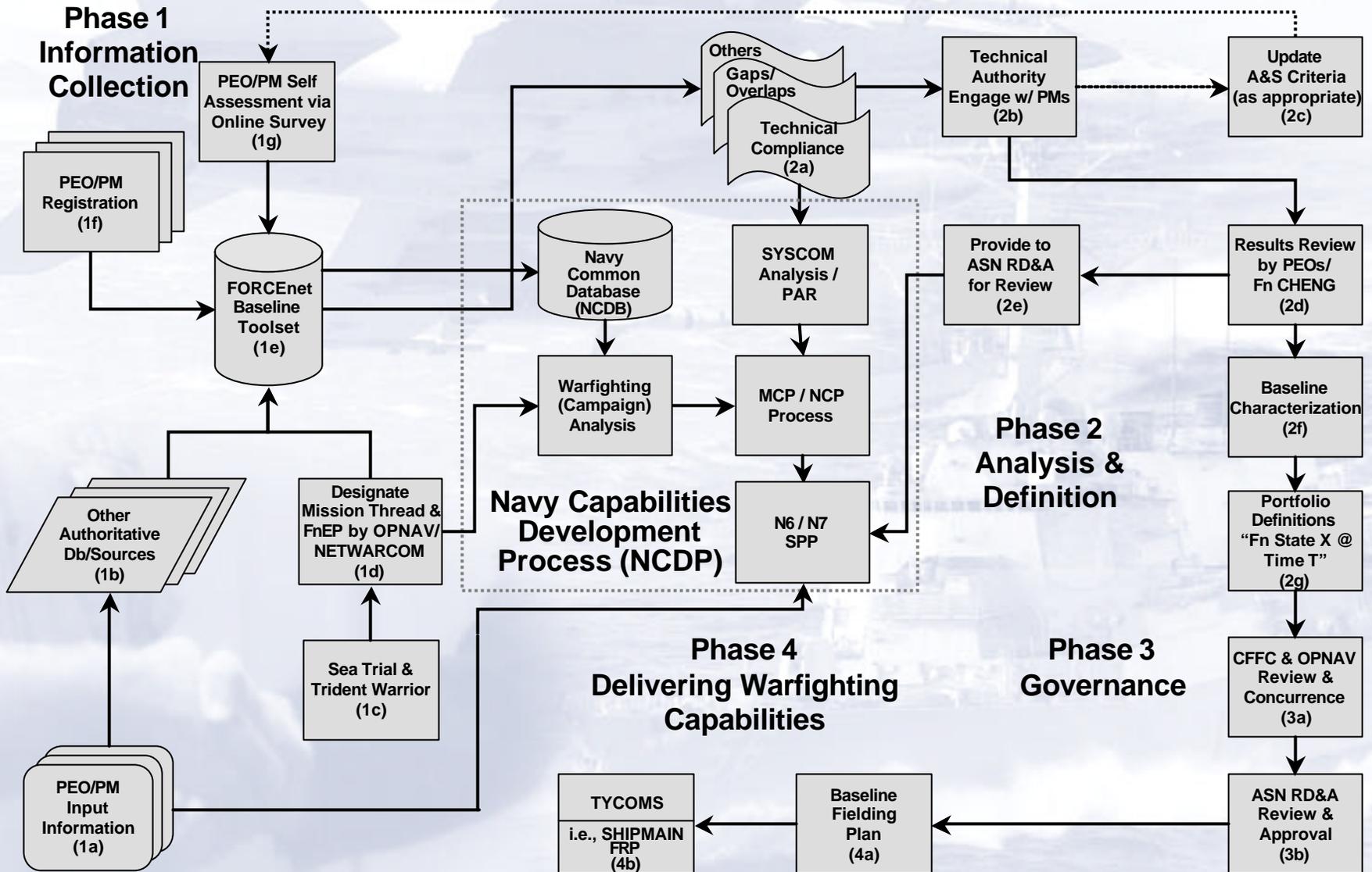
SPAWAR's Analytical Products

- **Assessment Analysis Focuses on Evaluating As-is and To-be Systems Architectures Capability to Perform MCP Mission Threads**
- **Assessments Validated, When Possible, in Joint Experimentation Efforts Such As Joint Rapid Architecture Experiments (JRAE)**
- **Human Systems Integration (HSI) and Related HSI Assessments Are Critical Elements of This End-to-end Process**



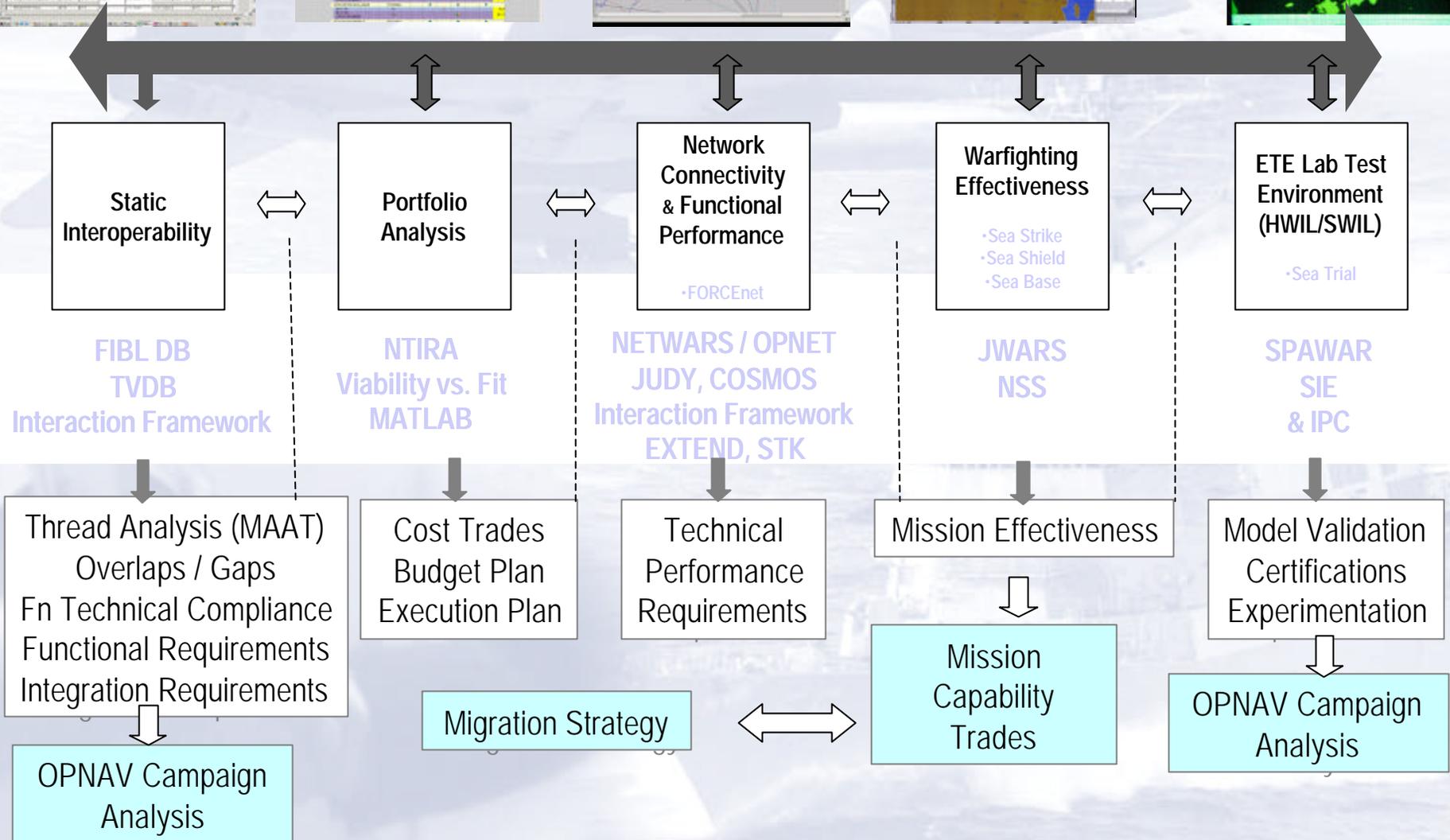
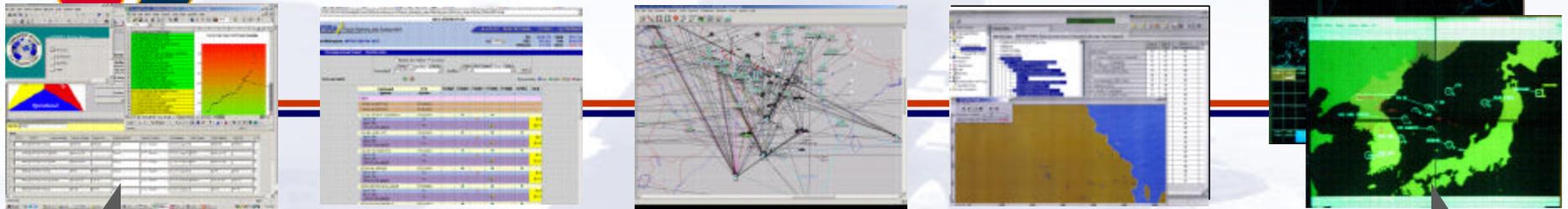


FORCEnet Implementation Process

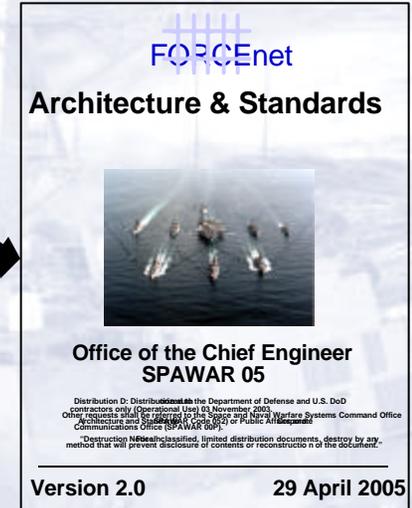
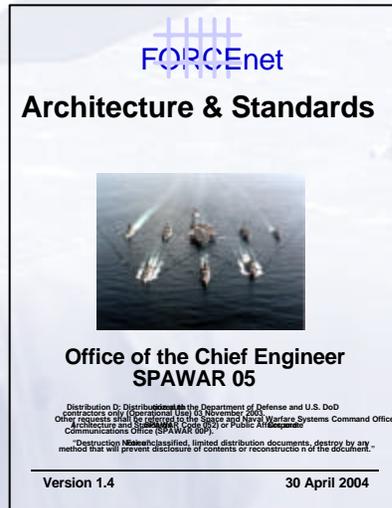
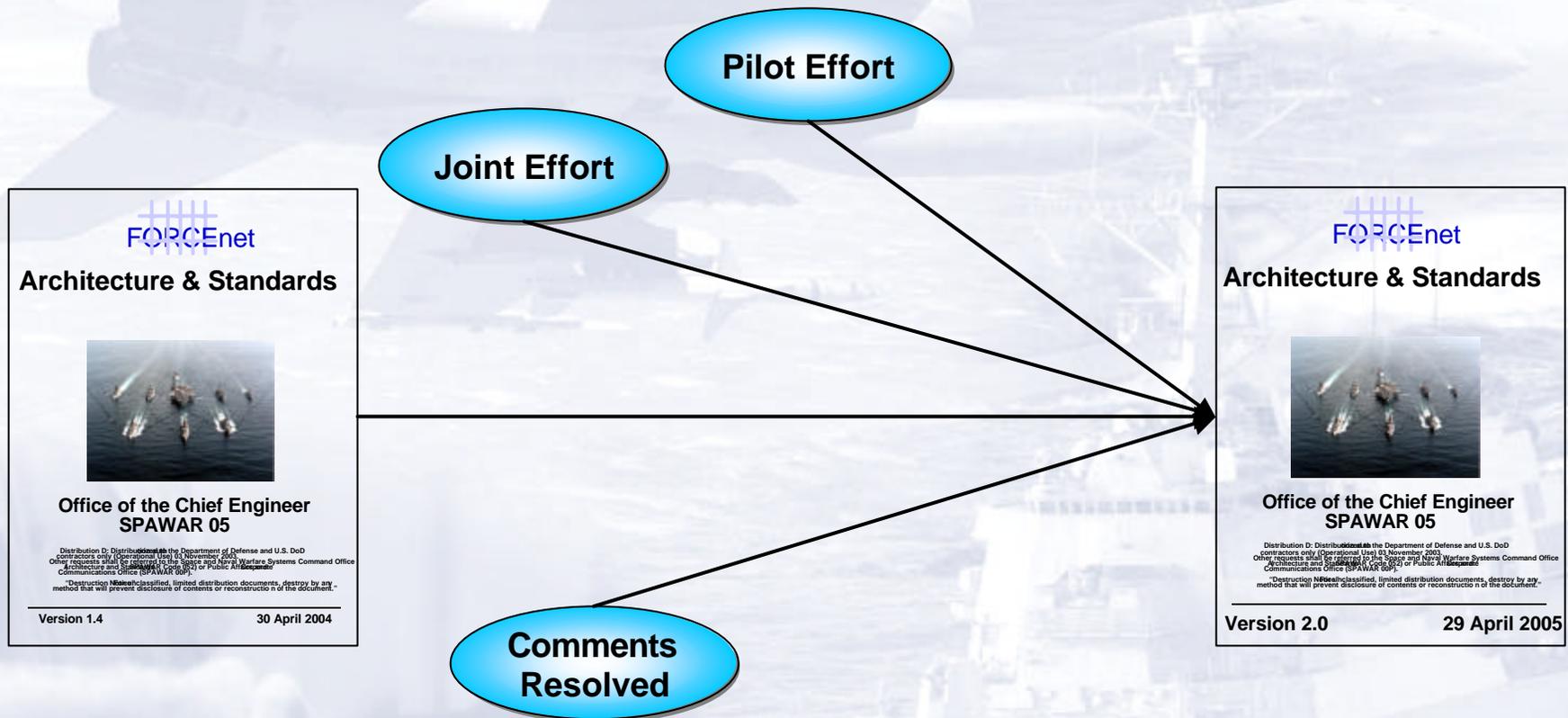


Note: C4I VS Process Engaged As Necessary

FIBL Process Tools

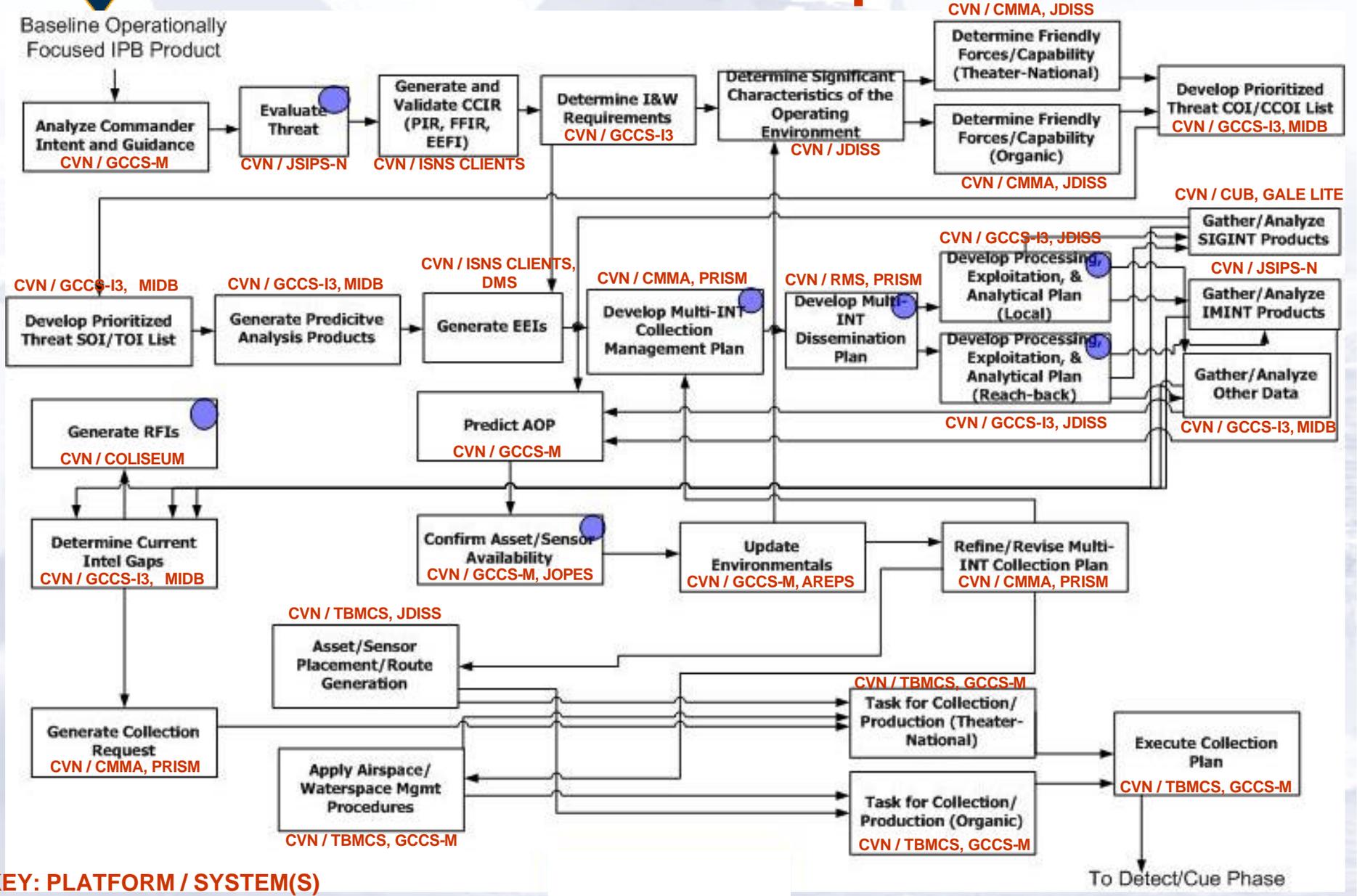


Architecture Products



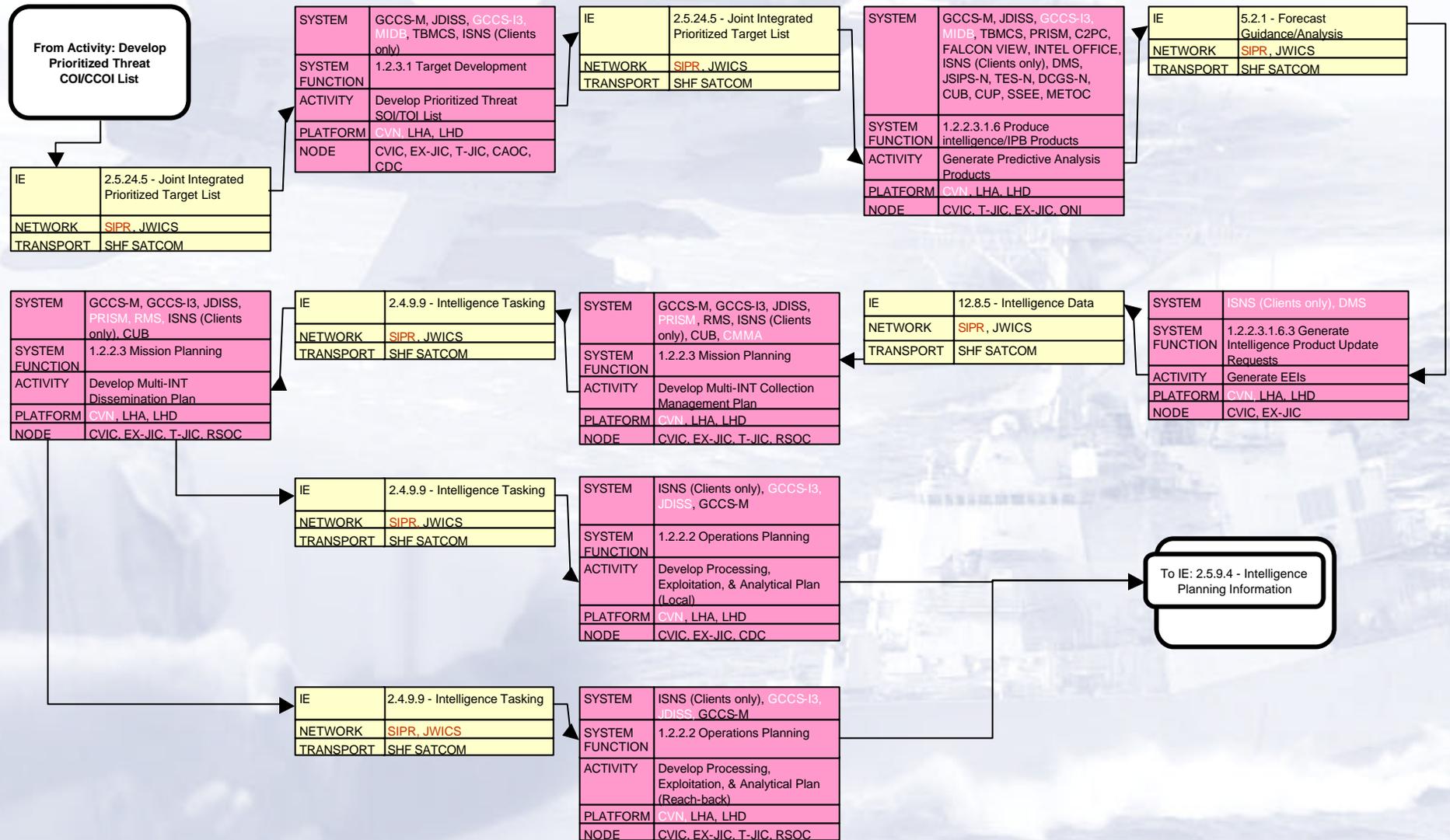


Example: Time Critical Strike Operational View





Example: Time Critical Strike Systems View





Authoritative Databases / Sources

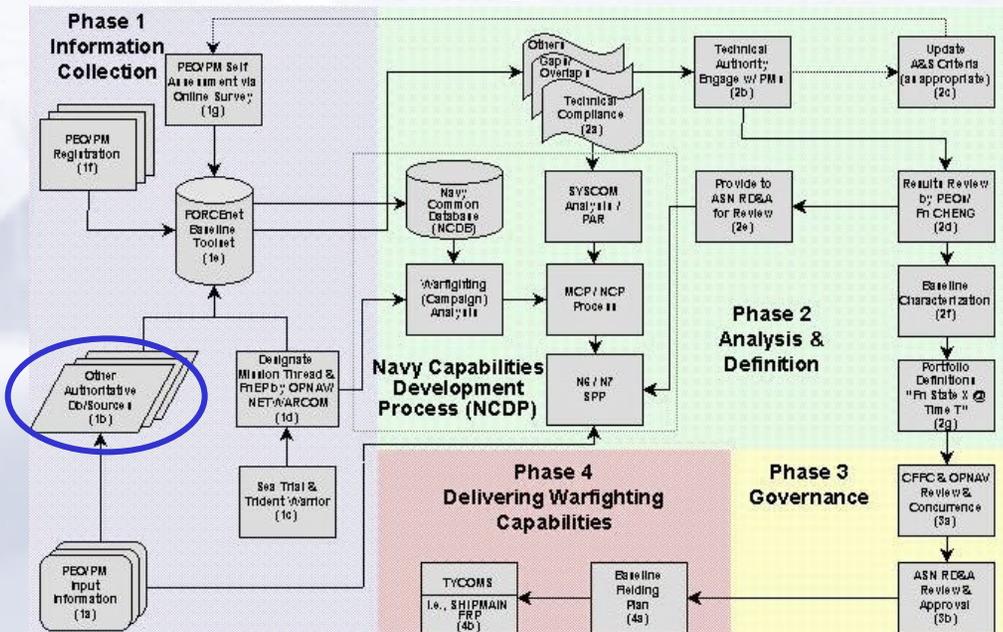
- **Auto Update:**

- **NTIRA (FnMP)**

- PBIS
 - NDE / AMPS
 - SPIDER
 - NTIMS

- **Manual Update:**

- JCPAT (C4ISP)
 - PEO C4I Roadmap
 - MSTAR (USMC)
 - DoD IT Registry
 - ONR S&T Roadmap
 - **GEMINII (Fn Analysis)**
 - JTA
 - Others



Listing Above Reflects Current Status – Future Plans Will Automate the Interface to More Authoritative Sources As the Business Rules Are Worked Out



SYSCOM Assessments Methodology / Tools Status

Current Status

- FIBL tools are nearly completed to support overlap / gap analyses
- FIBL population is underway for all FORCEnet systems
- Analysis/Assessment tools and methodology proven (approx. 9 assessments in last 2 yrs.)

Way Ahead

- Increase FIBL data collection and reporting relevant to assessments
- Utilize OPNAV MI-WIPTs to improve assessment quality
- Increase Joint system population

Shortfalls

- Static models currently cover only 142 functions of RDA CHENG CSFL of 1000+ functions
- Static models cover very few joint systems
- Mission threads are key; formal approval process within OPNAV / NNWC needs to be established for various mission areas

The Future Vision

- Populate FIBL Toolset with RDA CHENG CSFL
- FIBL Reports are fully joint
- Added assessment capability to assess HSI
- Joint Interoperability assessments



Balancing Risks & Resource Alignments

- **Current Process Focuses on Identifying End-to-End System Performance Risk**
- **Cost and Schedule Risk Are Evaluated by PMs for Individual Systems**
- **Working to Collaborate With PEOs by Integrating / Aligning Their C4ISR Product Roadmaps**
- **Fully Populated FnIBL Will Facilitate Improved Risk vs Resource Analysis**

- **Significant Progress**
 - FORCEnet Implementation Baseline alignment with NCDP
 - Virtual SYSCOM Collaboration
 - N81 inclusion of SYSCOMs
- **Recommend Focus Areas**
 - Fleet and OPNAV Operational View inputs
 - Joint alignment on requirements
 - Staffing impacts assessments



SPAWAR Points of Contact

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